

Appl. No. 09/895,579
Amdt. Dated 10/17/2003
Reply to Examiner's Telephone Discussion

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-13. (canceled)

14. (currently amended) A device comprising:
a silicon layer;
a relaxed layer comprising an embrittled region; and
a strained silicon layer in contact with the relaxed layer, the strained silicon layer to be transferred to top of a wafer by a heat treatment, the wafer having a base substrate and an oxidized film.

15. (canceled)

16. (currently amended) The device of claim 14 wherein the embrittled region is created by an ion implantation.

17. (currently amended) A device comprising:
a silicon layer;
a SiO₂ layer in contact with the silicon layer; and
a strained silicon layer on top of the SiO₂ layer, the strained silicon layer being transferred from a wafer, the wafer having an embrittled region and a stack structure of a base substrate and a layer of relaxed film.

18. (previously presented) The device of claim 17 wherein the relaxed film is a relaxed SiGe layer.

19. (canceled)

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20. (previously presented) The device of claim 17 wherein the strained silicon layer is transferred to top of the SiO_2 layer by a bonded-etch back process.

21. (previously presented) The device of claim 17 wherein the base substrate is a silicon layer.

22. (previously presented) The device of claim 17 wherein the heat treatment uses a temperature range of approximately 400°C to 600°C.

23. (previously presented) The device of claim 14 wherein the relaxed layer is a relaxed SiGe layer.

24. (currently amended) The device of claim 23 wherein the relaxed SiGe layer has a thickness ranging from $0.1 \mu\text{m}$ to $3.0 \mu\text{m}$.

25. (previously presented) The device of claim 16 wherein the ion implantation uses an energy range of approximately 1keV to 20keV.

26. (previously presented) The device of claim 16 wherein the ion implantation uses a dose range of approximately $1\text{E}16/\text{cm}^3$ to $1\text{E}18/\text{cm}^3$.

27. (previously presented) The device of claim 16 wherein the ion implantation uses hydrogen ions.

28-33. (canceled)